

### Abstract

An axle assembly that uses brakes that require cooling includes a brake cooling system that uses at least one hydraulic pump that supplies cooling oil to the brakes. Means for driving of the hydraulic pump using rotation of a component of the axle assembly such as a transmission or other mechanism is provided, thereby eliminating reliance on a towing vehicle. A heat exchanger cools the heated oil exiting from the brakes and recirculates the cooled oil back to the brakes for continued cooling.